

IN THE ABSTRACT:

Please replace the Abstract with the following replacement Abstract:

[[A s]]System and method for programmatically generating a graphical program in response to state diagram information. The state diagram information [[may]] specify[[y]]ies a plurality of states and state transitions, ~~wherein each state transition specifies a transition from a first state to a second state.~~ A graphical program generation program (GPG program), [[may]] receives the state diagram information and automatically, i.e., programmatically, generates a graphical program (or graphical program portion) based on the state diagram information. The GPG program ~~may programmatically~~ automatically includes graphical source code in a block diagram of the graphical program, which [[may]] serves as a framework of the states specified by the state diagram information and the state transitions ~~among the states.~~ ~~The graphical source code framework automatically generated by the GPG program may include, with~~ various “placeholders” or “containers” enabling the user to easily fill in the graphical program with source code ~~that specifies~~ specifying execution instructions for each state and Boolean conditions for each state transition. The specific graphical source code ~~that~~ is automatically generated [[may]] depends on programming features supported by a particular graphical programming development environment with which the graphical program is associated. ~~Examples of generating graphical source code for the LabVIEW graphical programming development environment are included.~~ ~~In one embodiment, the graphical program may be dynamically (programmatically) updated as the state diagram is being interactively constructed by the user. I.e., as the user performs various actions in a state diagram editor, such as adding or deleting states, adding or deleting transitions, etc., the corresponding graphical program may be dynamically (programmatically) updated to reflect the change.~~